

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) An apparatus for synchronization acquisition in a User Equipment (UE) communicating with any one of a first Node B in a first system mode operating in a synchronous scheme and a second Node B in a second system mode operating in an asynchronous scheme in a mobile communication system, comprising:

a controller for determining a system mode of a current Node B to which the UE belongs between the first system mode of the first Node B and the second system mode of the second Node B, and generating a system mode select signal in order to select the determined system mode; and

a code generator for generating a synchronization code used in ~~the first system mode or the second~~ the determined system mode in response to the system mode select signal.

2. (Currently Amended) The apparatus of claim 1, wherein the controller ~~determines~~ designates a system mode of a previous Node B to which the UE belongs prior to the UE powering-off as the determined system mode ~~of a current Node B~~.

3. (Currently Amended) The apparatus of claim 1, wherein the controller ~~determines~~ designates a system mode of a Node B, which was set by a service provider of the mobile communication system, as the determined system mode ~~of a current Node B~~.

4. (Currently Amended) The apparatus of claim 1, wherein the controller ~~determines~~ designates a system mode having a first priority among system modes previously stored in the UE as the determined system mode ~~of a current Node B~~.

5. (Currently Amended) The apparatus of claim 1, wherein the code generator comprises:

a register unit having a second number of registers necessary for generating a synchronization code used in the second system mode, the register unit operating ~~[[so]]~~such that a feedback value is input to a first number of shift registers necessary for generating a synchronization code used in the first system mode or to a second number of shift registers necessary for generating a synchronization code used in the second system mode, according to a predetermined control generated by the system mode select signal corresponding to the determined system mode;

a synchronization code mask unit for masking a mask value for generating the synchronization code used in ~~the first system mode or the synchronization code used in the second~~ the determined system mode, to a shift register value according to ~~[[a]]~~the predetermined control; and

a feedback controller for determining a register feedback tap of the register unit for generating the synchronization code used in ~~the first system mode or the synchronization code used in the second~~ the determined system mode according to ~~[[a]]~~the predetermined control ~~generated by the system mode select signal~~, and inputting ~~[[a]]~~the feedback value to a shift register corresponding to ~~[[a]]~~the determined system mode.

6. (Currently Amended) A method for synchronization acquisition in a user equipment (UE) communicating with any one of a first Node B in a first system mode operating in a synchronous scheme and a second Node B in a second system mode operating in an asynchronous scheme in a mobile communication system, comprising the steps of:

determining a system mode of a current Node B to which the UE belongs between the first system mode of the first Node B and the second system mode of the second Node B;

generating a system mode select signal in order to select the determined system mode; and

generating a synchronization code used in ~~the first system mode or the second system mode~~ according to the determined system mode in response to the system mode select signal.

7. (Currently Amended) The method of claim 6, wherein the determining step ~~determines~~ designates a system mode of a Node B to which the UE belongs prior to the UE powering-off as the determined system mode ~~of a current Node B~~.

8. (Currently Amended) The method of claim 6, wherein the determining step ~~determines~~ designates a system mode of a Node B, which was set by a service provider of the mobile communication system, as the determined system mode ~~of a current Node B~~.

9. (Currently Amended) The method of claim 6, wherein the determining step ~~determines~~ designates a system mode having a first priority among system modes previously stored in the UE as the determined system mode ~~of a current Node B~~.

10. (Currently Amended) The method of claim 6, wherein the synchronization code generating step comprises the steps of:

receiving a mask value and a shift register value for generating a synchronization code used in ~~the first system mode or a synchronization code used in the second~~ the determined system mode according to the system mode select signal;

determining a register feedback tap for generating the synchronization code used in ~~the first system mode or the synchronization code used in the second system mode~~ according to the determined system mode, and inputting a feedback value to a shift register corresponding to ~~[[a]]~~ the determined system mode;

shifting register values so that ~~[[a]]~~ the feedback value is input to a first number of shift registers necessary for generating the synchronization code used in the first system mode or to a second number of shift registers necessary for generating the synchronization code used in the second system mode according to the determined system mode; and

generating a synchronization code by masking [[a]]the mask value for
generating the synchronization code used in the ~~first system mode or the~~
~~synchronization code used in the second~~ the determined system mode, to the shift
register value ~~according to the determined system mode.~~